

REMARKS

In light of the Second Supplemental Declaration attached hereto, the requirement of a supplemental declaration is deemed satisfied, and the rejection of Claims 1-57 under 35 U.S.C. § 251 is deemed moot. Reconsideration is requested.

With regard to the requirement of a certificate under 37 CFR § 3.73(b), applicant notes that the assignee's authority is fully established by the instrument recorded at Reel 6185, Frame 0599 in the official records of the U.S. Patent and Trademark office.

The objection to the drawings and Specification are also deemed overcome. Likewise, the rejection of Claim 27 under 35 U.S.C. § 112, ¶ 2 is traversed on grounds that the claim as originally written was sufficient to particularly point out and distinctly claim the invention. The minor correction to change dependency is not related to patentability and renders the rejection moot in any event.

The rejection of Claims 1-11, 15-24, 28, 31-40 and 45-57 as being anticipated by DE'544 (the equivalent of U.S. Patent No. 3,915,117) under 35 U.S.C. § 102(b) is traversed. Reconsideration is requested.

First, applicant would thank the Examiner for his careful exposition of the reasoning that underlies his rejection. That explanation helps to frame the issues more clearly and is welcomed.

Applicant can also agree with certain of the Examiner's characterizations as to what the DE '544 reference teaches. For example, as the Examiner correctly mentions, a transport device 3, with a drive shaft 4 rotatable around a rotational axis is shown in the DE '54 document as well as at least two conveyors 5 for the workpieces 9. The Fig. 1 right-side conveyor is not marked with a reference number, but is equal to the conveyor 5 at the left side of Fig. 1.

There is, however, no transport arm but instead a transport table 3. Numeral 23 mentioned by the Examiner is a plate and, like the plate 19 at the right side of Fig. 1 is a valve plate, drivingly movable parallel to the axis of shaft 4 as shown with the single arrows in Fig. 1 of DE '544 or by double-arrows 52 in the corresponding U.S. Patent.

Inasmuch as the two conveyors that are mounted on the transport plate 3 are open on both sides, i.e. on top side and on bottom side, by means of the moving plates 23 onto one end of such conveyor, this end is closed. Simultaneously, by such drive, the spring-mounted conveyor 5 is pushed towards the respective opening as to the opening to the compartment 16. Thereby, the compartment 16 and the conveyor 5 together with valve plate 23 form a sealed treating compartment for the workpiece 9.

If the valve plate 23 were truly construable as a transport arm, then it would have to be said, to maintain

consistency, that such a part is in fact operatively coupled to the conveyor 5 to move the conveyor 5 independently of the other valve plate operatively acting on the other conveyor. This movement of the conveyor 5 established by the so-called arms 23 occurs also relative to the drive shaft 4. Nevertheless, neither the valve plates 23 nor the conveyors 5 have any radial movement component related to the drive shaft 4. Three possible movements may be referred to:

- (1) a movement parallel to the axis of shaft 4, i.e. a linear movement upwards and downwards, parallel to the two one-sided arrows at the left-and right-side of Fig. 1 in DE '544.
- (2) A rotational movement around axis of drive shaft 4, with transport table 3 and with the spring-mounted conveyors.
- (3) A radial movement which is neither mentioned nor suggested in the DE '544 document. This movement, under any rational definition used in geometry, occurs perpendicular to the rotational axis of shaft 4.

Neither the conveyor 5 nor the parts 23 or 19 of DE '544 perform any movement in a radial direction. No part of the DE '544 apparatus moves radially. The arrow close to numeral 4 represents the only rotational movement of shaft 4, transport table 3 and conveyors 5.

Even if, for argument's sake, the drive shafts 24 for the valve plates 23 and 19 were to be construed as "arms", they nevertheless move only axially, i.e. parallel to axis of shaft 4, not radially.

The drive shafts 24 also show no encapsulation whatsoever, but merely lead through respective seals and bearings of the chamber wall of chamber 2. Indeed, as a motor drive for the shafts 23 is outside the vacuum chamber, no encapsulation would be necessary in the first place.

Claim 16 clearly specifies at least one radial movement component or, in other words, at least one movement component perpendicular to the rotational axis of the drive shaft. No such teaching is found in DE '544, where movement cannot be accomplished in the claimed radial (or axis-perpendicular) direction.

The rejection of Claims 30 and 41-44 as being unpatentable over Tateishi et al in view of JP '727 of Claims 12-14, 25-27 and 29 as being unpatentable over DE '544 in view of Lavinsky et al and of Claims 2 and 17 as being unpatentable over DE '544, all under 35 U.S.C. § 103(a), are traversed. Reconsideration is requested on grounds previously set forth or stated above.

Tateishi et al show a vacuum chamber 32 (see e.g. col. 4, line 7) with an inner wall (the pentagonal vacuum vessel 30, col. 4, line 9) and a lid 31. According to Fig. 3, the

double-walled vacuum chamber 32 leaves the central area open to ambient. There is further provided a workpiece transport arrangement, with which at least one workpiece within the chamber 32 is selectively brought into a position adjacent to one of the openings 33. This transport arrangement is formed by a drum 39 (see Fig. 4) which carries members 42, via springs at 41.

By rotating the drum 39 within the double-walled chamber 32, the members 42 are in fact brought into alignment with the respective opening 33. Thereby, the transport arrangement, as the Examiner correctly notes, is rotatable around a rotational axis and carries the at least two members 42 for holding a workpiece each. There is further provided a rotational drive 25, as again correctly noted, to rotate the workpiece transport arrangement, i.e. the drum 39.

There are further provided two displacement drives (46, 47, 43), which extend into the open communication central area of the arrangement through respective openings in lid 31. These displacement drives may not be rotated around the axis of drum 39, but are, with respect to rotational movement. This is because the respective drive shafts lead through openings of stationary lid 31 into vacuum chamber 32.

Nevertheless, the at least two displacement drives are for displacing the at least one workpiece each with respect to the transport arrangement 39, whereby the members 42 are, in

fact, selectively brought into a position aligned with one of the openings 33 by rotation of the transport arrangement 39.

It would not have been obvious to the skilled artisan, as the Office Action asserts, to modify provide the Tateishi et al structure with a transport arrangement of the '727 reference. Considering the double-walled chamber arrangement of Tateishi et al with the stationary drives 43 stationary with respect to rotatability, which lead through sealed openings in lid or inner wall 31 of Tateishi et al vacuum chamber 32 and wherein a single wedge 45 simultaneously operates on all such stationary drives, it would have necessitated a completely contradictory construction to incorporate therein drives of the type as stationary drives 43 which are firmly linked to a central rotatable shaft as of the '727 reference. The skilled artisan simply would not have combined the transport arrangement of the '727 reference into the completely different arrangement of Tateishi et al without hindsight based upon the teachings of the present application.

The '727 reference differs from the teachings of Claim 30 by teaching only an arrangement at which the respective openings may clearly not be opened and closed by the drives, because e.g. the disk-shaped workpieces are arranged with their planes perpendicularly to the rotational axis. Clearly, the teachings of the '727 reference do not make obvious the claimed opening and closing of the openings by the drives. It

would not have been obvious for the skilled artisan to incorporate Tateishi et al's opening and closing of the respective openings, because here again this would have had the consequence of completely changing the construction of the '727 reference by providing the disk-shaped workpieces perpendicular to the drives, i.e. with planes parallel to the rotational axis at 73 and would have necessitated to provide members or features to enable such opening and closing which are not disclosed in the '727 reference. The overall vacuum chamber of that reference is in free communication, and there is apparently no need to close the respective openings selectively and thereby to shut up vacuum treatment chambers from one another.

The '727 also proposes flexible or pivotable transport arms and thereby even prefers, due to superior dust proofness, pivotable transport arms, that would make the claimed opening and closing even more difficult to realize.

The '727 reference does not appear to address the problem of shutting off the treatment stations via the openings from each others in view of mutual contamination, whereas Tateishi et al provide for such a drive (wedge 45) outside the vacuum chamber where any frictionally caused contamination may not influence the vacuum treatment performed on the workpieces.

The Lavinsky et al teaching, even if arguably combinable with those of DE '544, would not have resulted in the subject


matter of Claims 12-14, 25-27 and 29. Likewise, there is no substantial record evidence to support the assertion underlying the rejection of Claims 2 and 17.

Accordingly, favorable action upon all the claims is solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #622/40901CO).

Respectfully submitted,


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